

REMARKS

This communication is in response to the Office Action mailed on August 16, 2004. In the Office Action, claims 1-45 were pending.

On page 2 of the Office Action, claims 1-45 were rejected under 35 U.S.C. 102(e) as being anticipated by Savolainen (U.S. Pub. No. 2002/0126097). Of these claims, claims 1, 18, 27 and 35 are independent. Applicants respectfully submit that these claims are allowable over the prior art. Savolainen describes a method for entering alpha numeric data. In particular, Savolainen discloses a method of entering text using a reduced keyboard. Vocabulary modules are used to associate a list of possible text outputs given a keyboard sequence inputted by the user. The list contains objects in the vocabulary which match the entered keyboard sequence and are listed in a selection list according to the frequency of use. To specify individual letters in the sequence, which is especially important in cases in which the intended word is not in the vocabulary modules or related dictionaries, the user must use a multiple-tap (multi-stroke) method in which the key is pressed at least once for the intended letter (see FIG. 10, S113).

Independent claim 1 recites a method for selecting an intended word entered using a reduced keypad. One or more sequences of letters are presented as the possible intended word. The user may cause redetermination of the list of possible intended words by accepting one or more initial letters of the intended word without resorting to a multi-tap approach. This situation is especially useful when the intended word does not appear in the list or when the intended word is not in the vocabulary, or dictionary, being used. For example, if the present invention is used in conjunction with a standard telephone keypad and the user presses the number 6 as the first key in the input sequence, the user may have intended either "M",

"N", or "O". If the intended word does not appear in the list of possible words, the user may specify the first letter of the sequence as being one of "M", "N", or "O" without resorting to a multi-tap approach. In this manner, the list of possible intended words would be redetermined using the same sequence of input keys having the user selected letter as the first letter in the sequence. As a result, a more user-friendly approach to entry of words using a reduced keypad is realized.

In contrast, Savolainen does not enable the user to accept initial letters without using a multiple-tap approach. In FIG. 3 and its associated description, Savolainen describes traversing through a list of possible words in a dictionary dependency on user input. The list is presented after a user has input a sequence and pressed the select key. Savolainen further describes that a multiple-tap method is used to unambiguously specify each letter for words that are not in the vocabulary modules (Paragraphs 29 and 86 and FIG. 10). Step 5113 describes that a method other than the multi-tap can be used, but does not teach or suggest selection of a particular letter. For at least these reasons, Applicants respectfully submit that the method of claim 1 is neither taught nor suggested by Savolainen and is in allowable form.

Independent claim 18 recites a method for selecting an intended word entered using a reduced keypad in which the user, for an entered key input, accepts letters of the intended word. Sequences of letters are determined as possible intended words consistent with the entered key input and the letters accepted by the user. The accepting a letter increased the accepted letters by one and is repeated until the user selects one of the sequences of letter presented as the intended word.

In the rejection of claim 18, the Office Action cites Savolainen (figure 3, item S1 and paragraph 44) as showing an element wherein the user accepts a number of letters of the

intended word. Applicants respectfully submit that Savolainen does not describe a method of accepting a number of letters of an intended word, but instead accepts an intended word from a vocabulary. Paragraph 44 of Savolainen describes the operation of a reduced keyboard system in which the system receives a keystroke input from the keyboard and subsequently adds the keystroke to the keystroke sequence. Subsequently, objects in a vocabulary are identified that correspond to the current keystroke sequence. In this manner, the user, by entering a keystroke, is not accepting a letter of the intended word but is instead adding an ambiguous keystroke to the sequence. The sequence is then referenced to a vocabulary of words, rather than signifying a selection of one or more letters. In the present invention, a method of allowing users to specifically accept one or more letters in the keystroke sequence and subsequently redetermining the list of possible intended words allows the list to be narrowed based on selected letters and therefore contain possibilities that may not be in a dictionary. Thus, applicants respectfully submit that the method of claim 18 is neither taught nor suggested by Savolainen and is in allowable form.

Independent claim 27 recites a method for selecting a word entered using a reduced keypad including determining one or more sequences of letters consistent with the entered key input and a numbers of letters accepted by a user. The method further allows the user to accept additional letters thus causing the list of possible intended words to be redetermined. For example, if the user accepts three letters of the intended word and the redetermined list does not include the intended word, the user may accept one or more letters to cause redetermination of the list. Subsequently, the intended word is more likely to appear in the redetermined list. The list is determined based on a probability that the word is misspelled and taking into account an out-of-vocabulary penalty and a first occurrence bonus.

In the rejection of claim 27, the Office Action cites Savolainen (paragraphs 83 and 90) as showing an element wherein one or more sequences of letters are determined consistent with the entered key input and a number of letters accepted by the user. As discussed above, applicants respectfully submit that Savolainen does not describe enabling the user to accept a number of letters such that the sequences of letters determined as possible intended words are consistent with the accepted letters. The Office Action further cites paragraph 73 and 74 to describe an out-of-vocabulary penalty and a first occurrence bonus. However, these paragraphs simply describe adding a word or words to a dictionary and does not take into account a penalty or a bonus depending on the sequence of letters. There is simply no evidence in Slovenian to support a first occurrence bonus or out-of-vocabulary penalty used as recited in claim 27. Thus, applicants respectfully submit that claim 27 is neither taught nor suggest by Savolainen.

Independent claim 35 recites an apparatus comprising a reduced keypad having a plurality of keys used to enter a key input corresponding to a word and word-determining logic designed to determine one or more sequences of letters as the word. The user can accept one or more initial letters of the words to cause redetermination of the sequences of letters presented without resorting to the multi-tap approach. Applicants note that, as mentioned above with respect to claim 1, Savolainen neither teaches nor suggests allowing the user to accept one or more initial letters of the entered key input. Applicants respectfully submit that claim 35 is in allowable form.

In addition, Applicants further submit that many of the dependent claims are independently patentable. For example, claim 3 presents a sequence of letters not in a dictionary. The Office Action cites sections that correspond to formatting a word in a dictionary (didn't to didn't) and adding a word in a dictionary,

but does not present a sequence not in a predetermined dictionary. Additionally, claim 21 requires that the one or more sequences of letters determined as the intended word comprises at least one sequence of letters for each letter corresponding to a number within the entered key input immediately after a part of the entered key input accepted by the user. This aspect of the present invention is shown on page 18, line 13 through page 19, line 12. Simply put, this ensures that the user is able to select the next letter of the intended word as each letter corresponding to next keystroke in the input sequence is represented in at least one word in the list of possible intended words.

In view of the foregoing, Applicants respectfully submits that claims 1-45 are not taught nor suggested by Savolainen and are in allowable form. Reconsideration and allowance of claims 1-45 are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 

Todd R. Fronek, Reg. No. 48,516
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312